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# INDIAN RIVER NURSERIES

ESTABLISHED 1886



FAMILY AVOCADO

## Avocado Catalogue 1918

JOHN B. BEACH, Proprietor

West Palm Beach, Palm Beach County, Florida

# DADE LUMBER COMPANY

WEST PALM BEACH - - - FLORIDA

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## NOTICE

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While the war is over, it is not by any means paid for, and as a judicious economy I have decided not to issue the usual annual edition of my catalogues, for the year 1919, but to try and make the left overs from 1918 run me through the coming year. In spite of the tremendous advance in all prices, I am going to try to keep my stock as long as possible at the old 1918 prices, though if the cost of everything holds as it is now, I may be compelled to advance some things before the year 1919 is over. I hereby reserve the right to advance prices if necessary, without notice.

The cost of packing materials has advanced from 100 to 200 per cent, to say nothing of the advance in wages, and everything else, consequently I am obliged to make catalogue prices f. o. b. at nursery, to customers who call and receive their orders in wagons or trucks, without putting me to the expense of packing for shipment. Where packing is required for rail shipments an extra charge will be made to cover the cost.



CATALOGUE OF

INDIAN RIVER  
NURSERIES

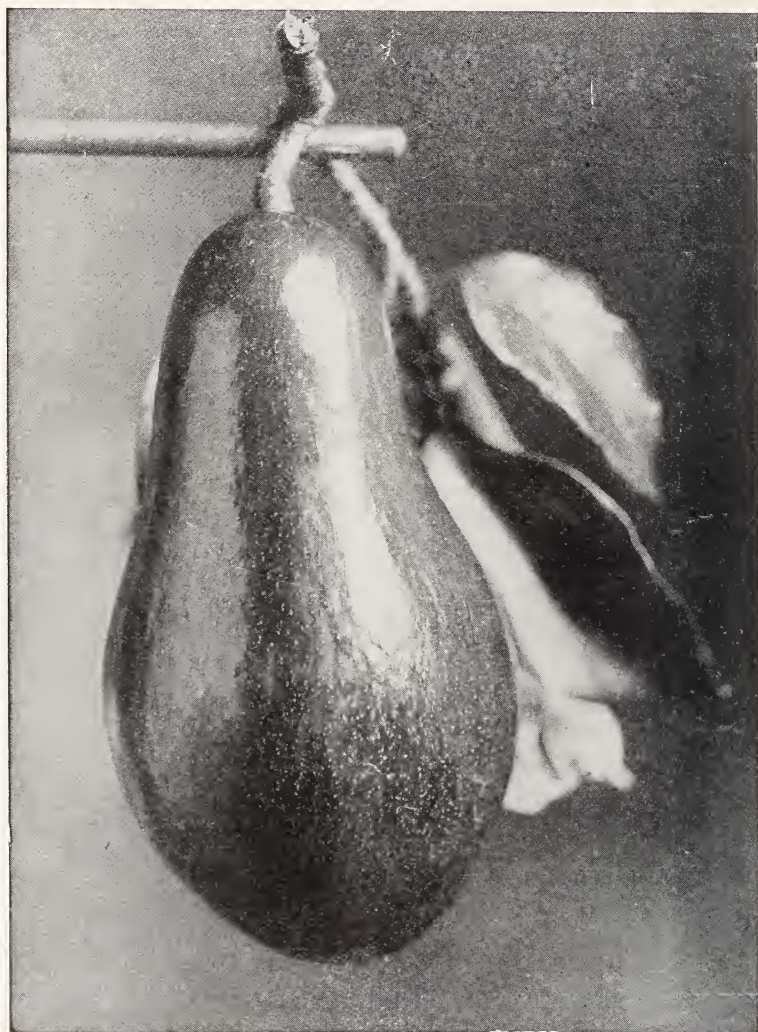
(ESTABLISHED 1886)

GRAFTED AVOCADOS AND EAST  
INDIAN MANGO TREES  
OUR SPECIALTY

West Palm Beach, Palm Beach County, Florida

JOHN B. BEACH, Proprietor





FAMILY AVOCADO



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## TERMS OF SALE

Terms cash with order if for immediate shipment; if for future delivery, 25 per cent, balance at time of shipment.

After delivering goods to carriers we cannot hold ourselves responsible for any loss or injury to trees or plants which have been carefully packed and shipped; but we shall do everything in our power, if any loss should occur, for the protection and recovery of our customer's property. If any mistakes are made in filling orders, we shall carefully rectify the same, but must respectfully request a prompt notification on receipt of goods.

In case of any error on our part it is mutually agreed that we shall not be held responsible for a greater amount than the purchase price.

## ADVICE TO GROWERS

In planting trees in Dade, Palm Beach and St. Lucie counties, experience has taught me certain things of value to customers, and I want to give a few hints on this line. In planting citrus trees never plant on mounds, as practiced in some localities farther north, **provided you have proper drainage**. In fact, on high, coarse, thirsty sand, setting an inch or two **deeper** is actually beneficial. Make a basin around the tree three feet in diameter, to hold several buckets of water, and mulch heavily with tobacco stems for six inches about the trunk. Outside of this any sort of mulching can be used, but it must admit water readily and give plenty of shade. Don't be afraid to use **plenty** of water; you can't use too much down here. The **more** you water the first year, the better grove you will have at the end of five years.

The above applies, of course, only to well drained land.

In planting Mangos, Avocados—in fact almost anything else but citrus trees—always plant from two to six inches deeper than they originally grew, and mulch in same manner. A very good way is to make a hole several feet deep, and fill it half full with some well rotted compost, then plant and place a barrel (minus both heads) in the hole about the tree to keep the hole from filling in, and protect from the wind while young.

In places where yellow subsoil appears at a depth of one to four feet a good plan is to dig down to this and fill up with yellow soil taken from some convenient place so that your tree is set in yellow soil all the way. Where compost is not available, a little bone meal mixed thoroughly with soil and allowed a few weeks to decay answers very well with the tobacco stem mulch to complete the fertilizer.

# Tropical Fruits

## Avocado

or Alligator Pear (*Persea Gratissima*)

This tree is the greatest money producer for South Florida, and the people of Southern California have gone wild over it. It yields as heavily and bears as early as the grapefruit, under identical conditions of soil and culture, and the value of its crop is about five times the market value of the latter. Avocados after November 1st readily bring \$3.00 per dozen, and after December 1st, \$6.00 per dozen wholesale, f. o. b. Last year they brought \$30 to \$34 per box f. o. b. around January 1st, and no chance to supply demand at those prices, as everybody had sold their crops before Christmas for \$20. Even Havana, Cuba, took a great many boxes at the latter figure.

Moreover, it is not only a fruit to tickle the palate of the rich, it is by far the most nutritious fruit (aside from nuts) grown, and will always find a ready market among the working classes, and there will never be a glut, as after November it is a splendid keeper and shipper. Following analyses made by the Agricultural Department in 1902 show that it stands in nutritive value between milk and eggs.

This analysis was published in the Florida Experiment Station Report, 1902, and published in the United States Department of Agriculture Bulletin 77:

Avocado		Per cent
Water	-----	72.8
Protein	-----	2.2
Fats	-----	17.3
Carbohydrates	-----	4.4
Crude fiber	-----	1.4
Ash	-----	1.9

Milk (Cow)		
Water	-----	87.0
Protein	-----	3.3
Fats	-----	4.0
Carbohydrates	-----	5.0
Ash	-----	.7

Eggs (Whole)		
Water	-----	73.7
Protein	-----	14.8
Fats	-----	10.5
Ash	-----	1.0

The Avocado can be eaten by the most delicate person, and those who suffer from stomach or intestinal troubles find it the best food for their physical condition. When ripe the fruit will fall from the tree, though



SEVEN-YEAR-OLD FAMILY AVOCADO AT WEST PALM BEACH.

still hard, but in two or three days it softens to the consistency of hard butter, when it is ready to eat. The meat is yellow inside, shading to green on the outside, and its flavor was aptly described by a farmer's wife from Illinois, who, on tasting her first fruit, remarked: "It is between a cocoanut and a musk-melon." It has a delicate nutty flavor, very pleasing, and can be eaten plain with a little salt as a vegetable, or with cream or wine and sugar. Its favorite role is a basis for salad, in which position it stands in a class by itself. Nothing will take its place, as soon as it is once known. The great thing about Avocado trees is, if possible, to plant the seed where you want the tree to grow, and never disturb it, as all the old settlers know.

**PROPAGATION**—So I have developed an improved method in propagating my Avocados. I insert a graft as soon as the seed sprouts so that the entire growth of the sprouting seed is made in the graft. By this method a tree of much greater vigor is secured, combining the vigor of the seedling with the qualities of the budded tree. By my method of grafting as soon as the first sprout leaves the seed, the first leaf made is from the graft, and as the seed is in a box, every rootlet it makes is undisturbed when you plant it out in the grove. By the time the top has attained the standard size (15 to 25 inches), the roots will have filled the box, and the tree must be set in the grove at once to obtain maximum results. In my opinion, the old method of planting seed in open ground, budding like a citrus nursery, then cutting off the top and growing a new one from the bud, then digging up and establishing in a box, produces a stunted tree, as compared with seed-grafting.

**SELECTION OF STOCK**.—It is impossible to tell from the size of the seed what sort of tree it will produce. Large seeds often make weak trees, with poor root systems, while a very small one will often make the most sturdy and vigorous one. Every seed as soon as sprouted is dug up and inspected, and from 40 to 60 per cent are discarded owing to imperfect root system, weak sprout growth, or some other defect, so that only the most vigorous are retained for stock to propagate. This has a great deal to do with the remarkable vigor and prolificness of "seed-grafted" trees. They will often bear when a year old, but it is best not to allow them to mature a crop before the third year, when, if well grown, they should yield a box per tree.

**CULTURE**.—Unless land is low, it is best to set trees in a basin six inches deep and eighteen across. This can be filled up when the trees are two years old. It is always a good plan to prepare the holes several months ahead if possible. In rocky land always loosen it up with a small charge of dynamite to a depth of several feet, and fill the hole with scrapings of top soil. In sandy land with yellow or red subsoil, with a white or light stratum between the top soil and the subsoil, dig down to subsoil and remove this intermediate stratum, and fill up with subsoil or top soil. Make holes  $2\frac{1}{2}$  to 3 feet across, and if possible mix in a bushel or two of stable manure in the hole, with a pound or two of Thomas slag. In case this cannot be obtained, use 5 or 6 pounds Beach's Wartime Special (advertised on back of catalogue) or 5 or 6 pounds of castor pomace.





TWELVE-YEAR-OLD TRAPP AVOCADO AT WEST PALM BEACH.

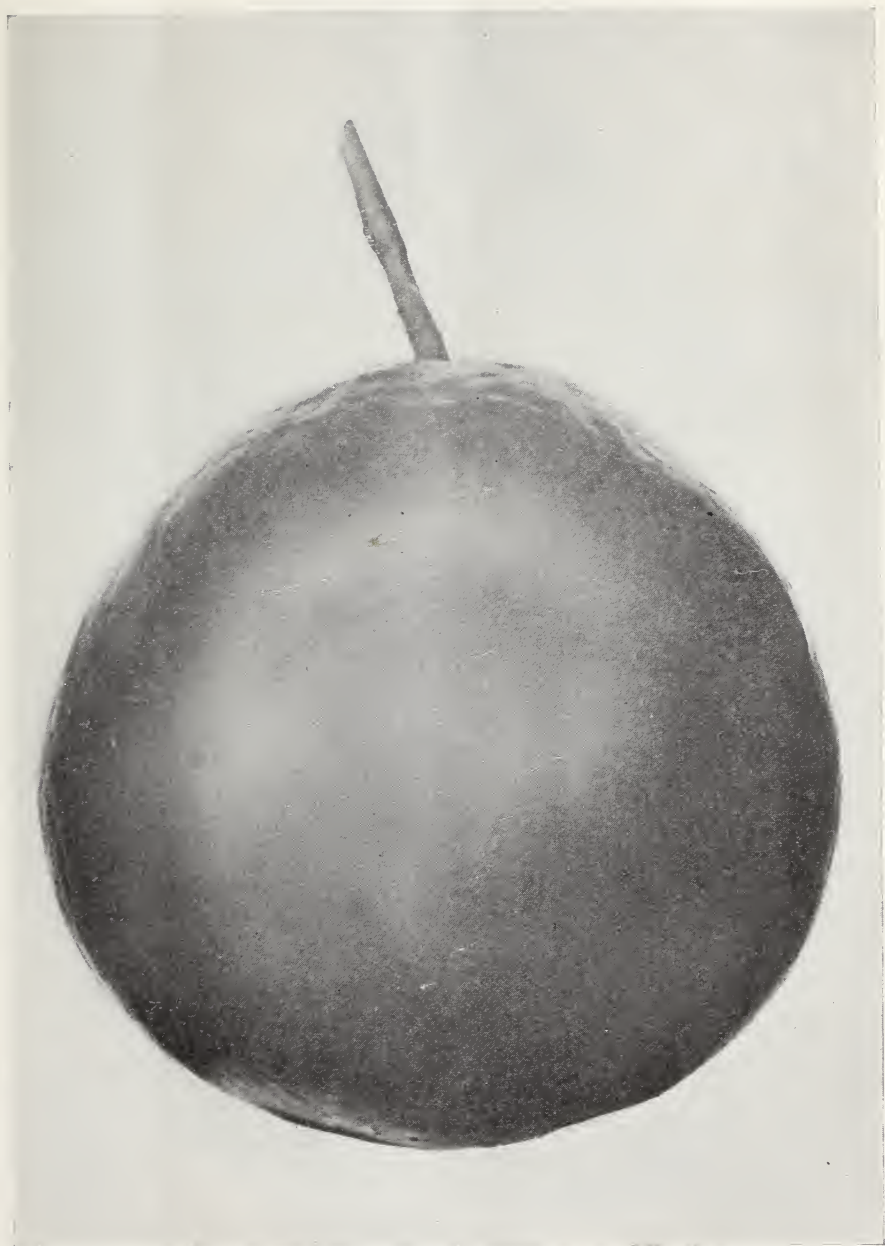


THIS PHOTO WAS TAKEN FROM ABOVE TREE.  
59 FRUIT ON THIS LIMB.

with 2 pounds of slag (the wartime mixture will not require this addition). From 5 to 10 weeks will be sufficient for this to mellow before planting, according to the amount of rainfall, and the process may be hastened by digging it over now and then to admit air. In planting, first remove the bottom of the box and then, after placing the tree in the hole, pull the sides apart and remove them. This lessens danger of attack from woodlice. Keep well watered during the first year, and after that trees will take care of themselves. Culture is the same as for citrus trees. The Avocado will thrive well on organic nitrogen, and horse, cow or fowl manure is good food for it. Don't be afraid to use plenty. When planted you should mulch with plenty of tobacco stems. This is to keep off woodlice and to supply the needed potash. Bear in mind that the trees must be kept properly moist during the first year, while their roots are getting spread in the soil, and on high land in dry weather in summer three buckets per week is often required. No expensive irrigating plant is needed, as a mule and wagon will answer, and can be easily moved elsewhere after the first year, when it is no longer needed. When planting in June, July or August, it is advisable to shade. A good plan is to drive four plastering lath about a foot in the ground around the tree in the shape of a rectangle, four feet east and west and two feet north and south. Nail two lath and three half lath between the tops and stretch a strip of burlap, old grain or fertilizer sacking on top and tack it firmly. This will furnish a partial shade from 9 a. m. to 3 p. m. This is not essential, but saves moisture, and is a decided aid to the young tree.

**ENEMIES.**—In some localities young trees are quite subject to attacks of fungus which makes black spots on the leaves, and often girdles the stem, sometimes killing the tree. To prevent this it is well to spray with some fungicide, monthly in wet weather. Following will prove convenient and efficacious: Dissolve 8 pounds bluestone in 50-gallon barrel of water, and 10 pounds of sal soda (sodium carbonate) in another 50 gallons; keep covered to prevent evaporation, and mix in equal parts as needed. Apply the same day it is mixed. In this way you may have your solution fresh whenever you want it, and as long as kept separate they will keep for years. An excellent precaution, where this trouble is feared, is to paint the trunk of each tree with a whitewash made by using some of the copper solution above, thickened with air-slacked lime, before planting. The Avocado is seldom troubled with scale, but the Guava fly has been known to attack it. Usually the tree drops its leaves, and that puts an end to the trouble, new foliage coming out clean of insects. This insect closely resembles the whitefly, but it never attacks citrus trees—the wild paw-paw being its chief food. It does little harm to the Avocado. On the whole, the Avocado has not one-fourth the enemies that the Grapefruit has in Florida, and the fruit brings over twice as much in the market. Any good scale destroyer may be used for the Guava fly, or any scale which may chance to attack the trees. I have adopted Target brand, as most convenient. But the best plan is to feed your trees well, and if given a proper start the first year, by supplying sufficient moisture the chances are that neither scale nor fungus will trouble them again. Bear in mind that the





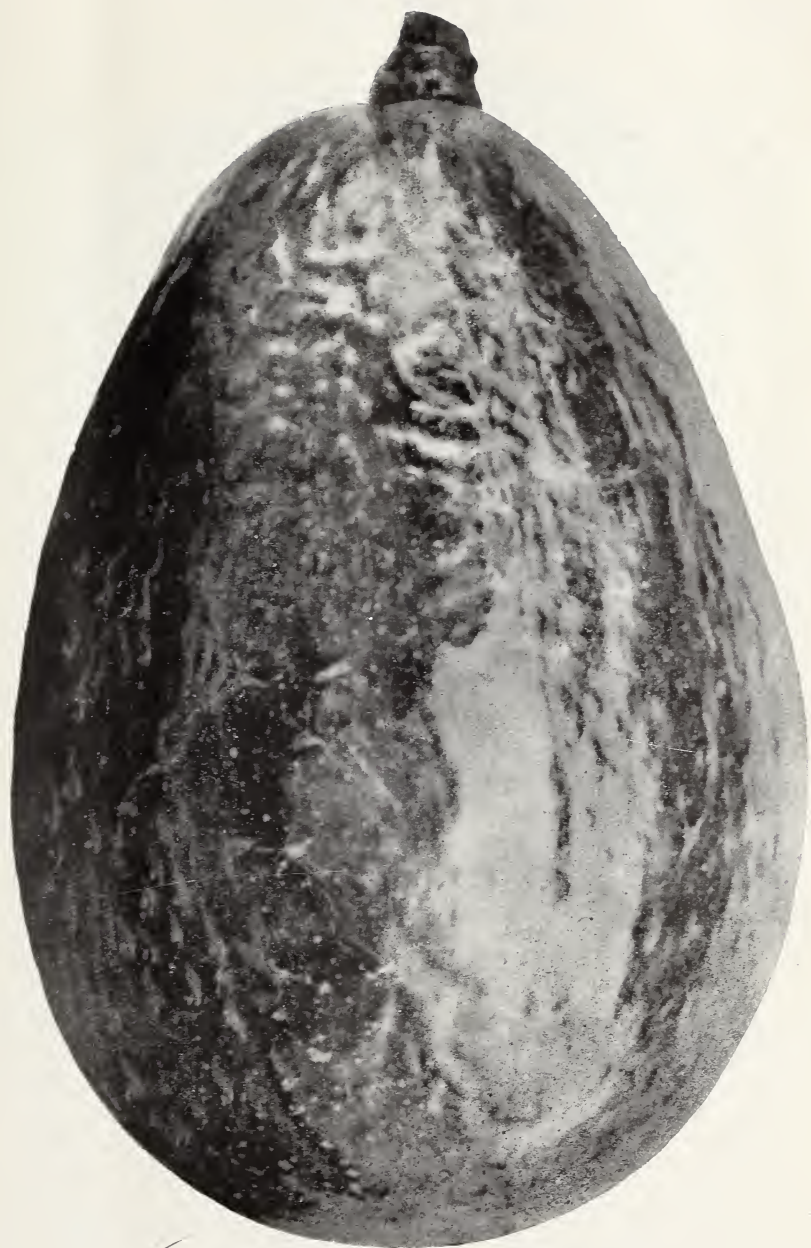
TRAPP AVOCADO (TWO-THIRDS NATURAL SIZE).

Avocado is a gross feeder, and can make good use of about twice as much fertilizer as citrus trees of same age. While they live and thrive on less, they will repay you many fold for the extra food in growth and fruit. A good plan is to give them the same commercial fertilizer you would your citrus trees, and in addition an equal value of manure or castor pomace. In May, 1914, some new settlers near here planted groves, on spruce-pine land. All planted some of my seed-grafted trees, and received in substance the foregoing advice from me. Being new to Florida, they had no preconceived ideas of their own on the subject, and followed my advice pretty closely. When planted these trees were about 16 or 18 inches tall and were from seed planted in September, 1913, and grafted the following November. June, 1915, I visited the groves and found the trees standing from 4 to 5 feet high, with a spread of 3 to 4 feet, and nearly one-third of them holding fruit, some as many as 20. Now I do not advise allowing a tree to hold more than one or two at most the first year, and believe it better to pick them all off, as maturing a crop so young generally stunts and injures the tree. But I had a tree of the Family variety which, planted out in November, matured 23 fruit the second July, and it did not injure the tree except to cause it to lose about a year's growth.

**NOT SUBJECT TO CITRUS INSECTS.**—So far we have found no insect which attacks both the Avocado and Citrus families. As a result great advantage can be derived by planting a grove with the two in alternation. Thus each citrus tree will be surrounded by four immediate neighbors which are immune to any insects which may attack it, forming a sort of insulation against the spread of enemies from tree to tree. The same, of course, will be true of each Avocado tree. This is a matter which will immediately appeal strongly to all experienced fruit growers. Moreover, the roots seem to agree well in the soil with each other. All tropical trees while young are tender and one or two pine tops placed on north and west sides are a good protection the first winter. The second winter a frame can be rigged up, over which a cover of old fertilizer sacks sewed together may be thrown cold nights; while it may become necessary only once in eight or ten years, it is a good insurance policy and costs little. To protect avocados, mangos, or in fact oranges or any other tree from a freeze like that of 1895, wrap tobacco stems around the tree from the ground up, and plenty of thicknesses of newspaper outside of this, then burlap over all. Then pile sand up in a cone around this, and leave all winter. The tobacco is essential to keep out insects.

All growers should bear in mind that the future of the grove depends mainly on the **CARE GIVEN IT THE FIRST YEAR**. Do not fail to give trees **PLENTY OF WATER**, and spray with copper solution **AS OFTEN AS NECESSARY**. With good attention the first year, the grove will stand much neglect thereafter, and suffer less harm than a citrus grove would, under similar circumstances.

**TYPES.**—Avocados may be divided into three types, which differ almost as much from each other as do the various branches of the Citrus family, as Orange, Lemon and Grapefruit, both in habit, foliage, fruit, odor of foliage and cold-resisting power. The West Indian type is the most tropical and bears the largest fruit, and is, in fact, the only type



✓ SINALOA AVOCADO (NATURAL SIZE).



known in the markets of the East. Practically all the trees bearing in Florida and the West Indies are of this type.

**TRAPP.**—Matures so it may be eaten about November 1st, but hangs on the tree so the main crop is marketed in December, when prices are high. If allowed to remain till they drop naturally, some will last into February and March, and whenever they do drop, if soil is soft, they will be sound enough to stand the fall and keep for one to three days before mellowing up ready to eat. This is of great advantage for local markets and home use. But if you desire regular crops you should have all your fruit off the tree by January 1st, or better by December 15th, and supply later markets with Guatemala types, which do not mature so early, otherwise your trees will only bear every other year.

Nearly round in shape, of excellent quality and flavor, exceptionally good shipper and keeper, bearing young, and enormously productive, this is the variety for general commercial planting. It has stood the test of 12 to 15 years, and established a name in the markets of this country like the Sicily lemon and Havana cigar, and needs no advertising to introduce it.

**FAMILY.**—Matures fruit during July and August and lasts well into September. Sometimes seedless; seed, if any, small. Fruit long, pear-shaped, being very beautiful. Color green, changing to purple when ripe; flavor very delicate. Specially recommended for home use. Weight,  $1\frac{1}{4}$  to  $2\frac{1}{2}$  pounds.

**POLLOCK** (See cut on outside front cover).—Ripens in August and September. Weight, 2 to 4 pounds, sometimes 5 pounds; seed small; color green; pear-shaped, with a thick neck; flavor very rich and nutty; best of all. Coming in the height of the season it is not so desirable for a market fruit as earlier or later varieties.

Prices on above, \$1.50 each; \$15.00 per dozen. Owing to excess of demand over supply of seedgrafted Avocado trees, my stock is, most of it, engaged from 4 to 12 months in advance. Orders are booked with 25 per cent down, and filled in rotation; balance to be paid on delivery. This applies especially to Classes 2 and 3.

#### Class 2, GUATEMALAN TYPE. (For Middle Florida.)

The Guatemalan type originates in the elevated table lands of Guatemala, where considerable cold is experienced in winter, and are accustomed to endure about as much as the orange—20 to 25 when dormant, and 25 to 27 after they have started their spring growth and blossoms. Fruit has a rough, thick rind, almost a shell in some varieties, and a tight seed. The first, while it injures the appearance, improves the shipping and keeping qualities, and, like the russet orange rind, may be a blessing in disguise. The tight seed also adds to shipping value. The fruit is generally smaller than Class 1, not so rich in coloring of meat, and a trifle different in flavor. This type is distinguished by the same odor in its foliage as the common bay, to which it is closely related.

**WINSLOW** (Rechristened, formerly sold as Taylor).—This is the best of the late winter avocados of Guatemala, hardshell type, among those of



WINSLOW AVOCADO (NATURAL SIZE).

Florida origin. May be eaten as early as February, but does not begin to drop till April, and last summer the last one hung on into July. Thus the crop may be marketed any time in February and March, without waste, or held later, and used as they drop. A seedling from Guatemala seed, which has fruited five years in Florida, and proven a vigorous grower and good producer. Flavor very rich and nutty, smooth and delicious; acknowledged by all who have tried it as superior to Trapp. Tight seed, and thick, hard rind, make it an ideal shipper, as well as its shape, which is almost globular. Color, dark green. Weight, 10 to 15 oz. (See cut.)

Following come from California, and have not been tested long in Florida:

✓ **SINALOA.** (See cut.) Color green, skin thick; flesh deep cream colored; smooth, rich and pleasing in flavor. Ripens in December in Florida. Weight 1 to 2 pounds.

✓ **GRANDE.**—Pearshaped; flesh deep cream color; smooth, rich and delicious flavor. Weight about 2 pounds. Ripens in December. Has fruited two seasons in Florida, and proven of good quality, and a vigorous grower. Begins to bear young. Color, when ripe, green and purple mottled.

✓ **PERFECTO.**—Oblong-pearshaped. Skin thick, tough and hard, making it good shipper. Flesh cream color, very smooth, rich and delicious. Weight 24 to 30 ounces. Ripens in January (in California).

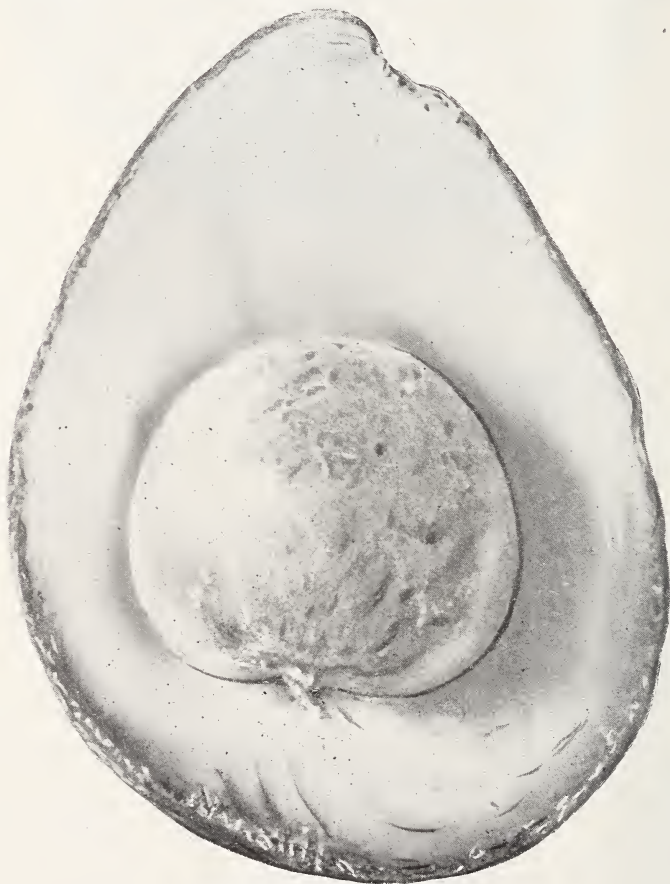
✓ **SOLANO.**—Oval in shape. Flesh yellowish-cream colored. Firm, fine and pleasant in flavor. Weight 1 to 1½ pounds. Ripens in October and No-

vember in Florida. Considered very promising by some Florida growers, but condemned in California, owing to lack of richness, as analyses show only 4 to 6% fat.

✓ **MESERVE.**—Round, or nearly so. Skin rough, dark green, thick and tough. Flesh creamy-yellow, very rich and nutty in flavor. Weight, 14 to 16 ounces. April and May (in California).

✓ **QUEEN.**—Weight 20 ounces. Color purple. Skin thick, hard and woody. Pearshaped. Flesh yellow, free from fiber, rich and nutty. Seed only  $7\frac{1}{2}\%$  the weight of the fruit. Smallest tight seed known. Buds of this were brought over at great expense, personally, direct from the mountain region of Guatemala, by Mr. E. E. Knight, and he charges \$10 for the trees and \$45 per 100 for eye bud-wood. I offer limited number for \$5 each.

✓ **\*TAFT.**—Weight 16 ounces. Fat 16.53%. Pearshaped. Color green. Skin thick and firm. Flesh light yellow, smooth, free from fibre, and of



TAFT—NATURAL SIZE.



unusually pleasant flavor. Tree exceptionally handsome and vigorous, and of good productiveness. Season, late winter and spring. (See cut.)

\***BLAKEMAN**.—Weight 16 ounces. Fat 17.27%. Pearshaped. Color green. Skin thick and tough. Flesh cream-colored, of fine, smooth texture, and rich and agreeable flavor. Strong grower and prolific. Season, late winter and spring.

\***DICKINSON**.—Weight 12 ounces. Fat 20.36%. Shape obovate. Color purplish-black. Skin unusually thick and woody. Flesh greenish yellow, free from fibre, and of pleasant, fairly rich flavor. Good grower, precocious and prolific. Season, late winter and spring.

\***LYON**.—Weight 16 ounces. Fat 17.27%. Pearshaped. Color green. Skin moderately thick and tough. Flesh deep cream-colored, smooth, free from fibre, and of rich, pleasant flavor. Very precocious, coming into bearing two years from the bud, and is a heavy bearer. Season, late winter and spring.

\***SPINKS**.—Weight 16-20 ounces. Fat 16.46%. Obovate to pearshaped. Color purplish-black. Precocious and prolific bearer. Season, late winter and spring.

\***SHARPLESS**.—Weight 20 ounces. Fat 24.23%. Pearshaped. Color purplish-maroon. Skin thick and hard. Season probably the same as Trapp, but not yet fruited here. Seems to be the greatest all around general favorite in California.

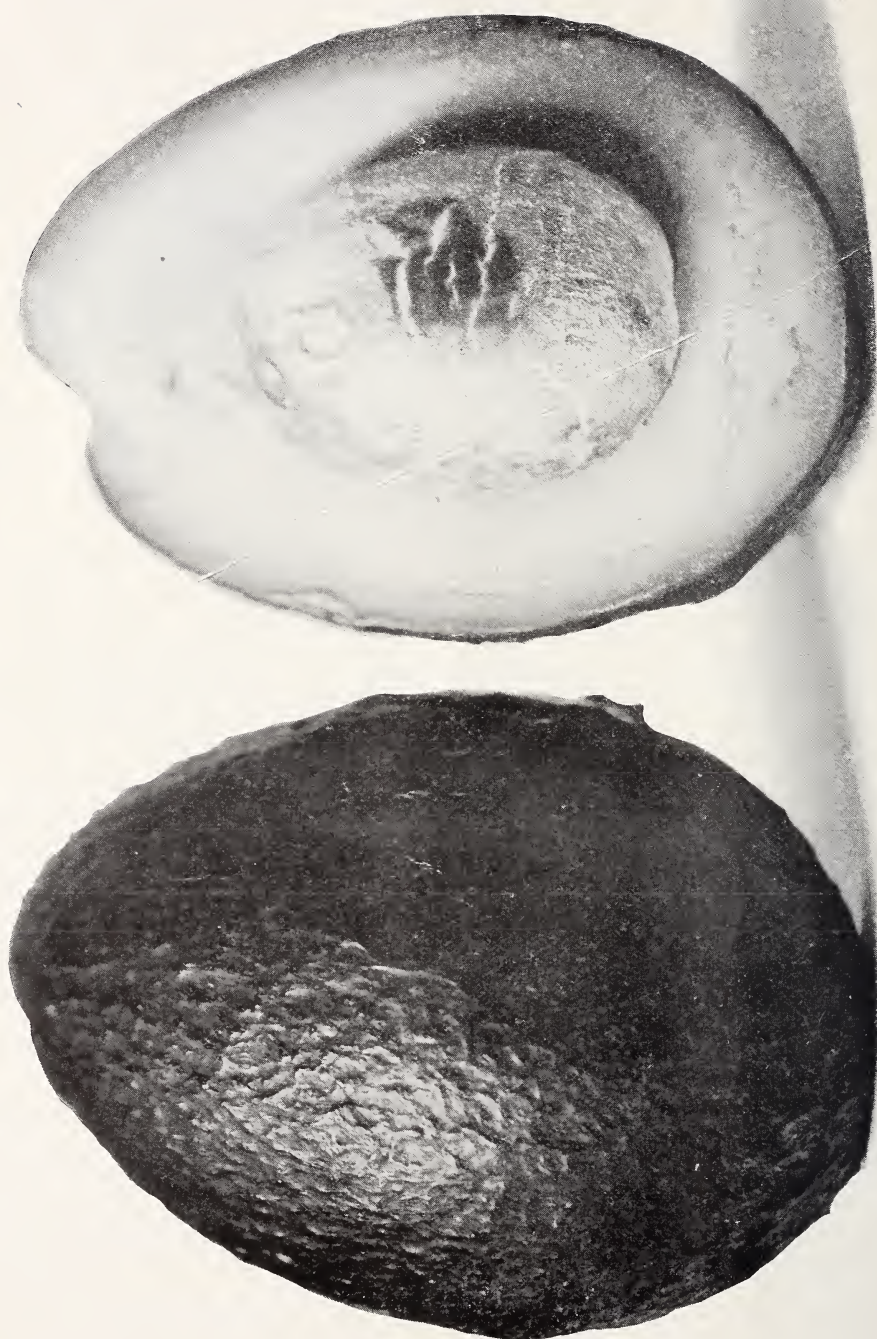
### Class 3, MEXICAN TYPE. (For Northern Florida.)

In the lofty table lands of Mexico a still harder type is found, which has to withstand freezing temperatures frequently, with ice and snow. The fruit runs still smaller than Class 2, but is generally richer in fat than either of the other types. The skin is generally thinner, with adhering pulp, but smooth and with a tight seed. There are seedlings of this type on the estate of Baron von Lutichau, near Waldo, which Prof. Hume visited in 1901, and said appeared then to be six or eight years old. They are now about 40 feet high, and have never been injured by cold, it is said, while orange trees have twice been killed to the ground nearby. Of course, it is best to protect these valuable trees while young, anyhow, as every year of age makes them harder. This type possesses the odor of anise in its foliage, as a distinguishing characteristic, instead of the bay odor of Class 2.

\***FUERTE** (See Cut).—Weight 12-14 ounces. Fat 30.72%. Pearshaped. Color green. Skin thin, but hard. Flesh straw-colored, smooth, rich and well flavored. Unusually vigorous grower, and good producer. It is by far the richest known avocado, and runs higher in fat than does the olive in California. Matures about same season as Trapp, and has ripened the second crop in Florida. (See cut.)

\***PUEBLA**.—Weight 8-10 ounces. Fat 26.68% (second only to Fuerte). Color purple. Skin very thick and tough. Flesh yellow, smooth and of

\* The 8 varieties thus marked were selected last summer, by the California Avocado Association, as the best tested varieties in California for general commercial propagation, in that state.



FUERTE AVOCADO--FLORIDA GROWN (NATURAL SIZE).

rich flavor. Very rapid grower. Precocious, and a prolific fruiter. Season probably same as Fuerte in Florida.

**SAN SEBASTIAN.**—Weight 12-16 ounces. Slender, pearshaped. Color black. Skin rather thick, separating from the golden yellow flesh, of rich flavor. Prolific and vigorous. Typical, pure, Mexican type, and probably hardiest among the three. Begins to ripen in June in Florida, and may develop a secondary late crop with age.

Prices on Classes 2 and 3, \$2.50 each; \$24.00 per dozen; \$150 per 100. (Except Queen.)

**SEEDLING AVOCADOS.**—In boxes, for stock only, at following prices:  
12 to 18 inches, 25c each, \$2.50 per dozen, \$20.00 per 100.  
18 to 30 inches, 50c each, \$5.00 per dozen, \$35.00 per 100.

## Concerning the Avocado

In South Florida, where we have trees as we have here two feet in diameter, seedling Avocados, one can be sure that they will stand the climate. Every winter the writer has Trapp Avocados on his trees as late as March, and all during the winter they readily brought \$1 each at retail. Had there been any to ship they would have retailed even higher in Northern markets, for when once one acquires a taste for avocados they want them all the year around, every day and often twice or three times a day. People who can afford it will pay almost any price for them when scarce. I talked with a man from Chicago, who said he paid \$1.50 each for them last January. Then there is another feature which gives the industry a permanent future which no watery fruit like grapefruit or orange can hope for, and that is their food value. In fact, one bushel of Avocados possesses more food value than ten bushels of grapefruit, and the intrinsic value is more than ten times as great as citrus fruit. Suppose that the prices on grapefruit should drop as they did in 1914 (they don't pay to grow at these prices, often not paying to pick and pack), what would the grower do with his product? If the entire crop was manufactured into essential oil, citric acid and sugar, the market for the two former would be glutted ten times over, and the quantity of sugar obtained would not pay the cost of extracting. Suppose, on the other hand, the grower was faced with a glutted avocado market? Every two bushels of his fruit would be worth one bushel of corn for feeding to cattle, hogs or chickens. (In comparing avocados to shelled corn we must allow 50 per cent for seeds and skin). Eggs would have to get down below 20 cents per dozen to compete with avocados as food for the masses in winter time.

One of the great features of this winter avocado is that coming on in the cool weather it can be shipped and handled much more easily and cheaply than eggs. A friend of mine whose home is in New Jersey and who comes down every winter, came earlier than usual last year. He was here while avocados were still plenty, and they were served regularly at his boarding house. He said that hearing that they were equal to eggs in nutriment, and being accustomed to making his breakfast from eggs and coffee, he substituted Avocado for eggs, and found that it agreed with him and stood by him just the same. Another advantage over eggs as a food



which this fruit possesses is that it is much easier on delicate bowels than eggs, which are constipating to some people. Often cures constipation.

Further than this, avocados are a boon to the dyspeptic, as they are a food more easily digested than almost any other form of nourishment known. A former applegrower from Washington State, who has sold out and located in this place, told me recently that he had never been free from indigestion till avocado season came on here in August. Since then he has made his main diet of this fruit, and has been entirely cured of his trouble. One remarkable feature about this fruit is that all animals realize its food value and relish it. In the West Indies dogs subsist largely upon it and fight over a fruit as they would over a bone. Chickens prefer it to corn, and even cats relish it. It is the only fruit or vegetable that I have ever known that the average cat will take to on first acquaintance. While it is scarce and only a luxury for the rich it will command fancy prices, but just as soon as the production is sufficient to more than supply this fancy market it will rapidly become a staple article of diet for the masses of the people, and will always sell at very remunerative prices for the producer.—Florida Farmer and Home-seeker.

Following extract from letter of Charles Montgomery, dated December 11th, 1915, will show how prices are holding up this season so far: "Since December 1st I have bought two crops at \$6.00 per dozen on the tree. I am quoting this fruit at \$30.00 to \$35.00 per crate, and have sold all, with the possible exception of seven crates. I expect to get as much or more money for the rest of them."

Mr. E. D. Vosbury, of the United States Bureau of Plant Industry, in an article in the Florida Grower of February 26, 1916, states:

"While the unique and delicious flavor of the fruit is sufficient alone to insure its popularity, the Avocado has another quality that puts it in a class by itself. No other fruit, not excepting the olive, equals it in food value. Most of our fruits analyze 200 or 300 food units per pound, expressed in calories. The Avocado averages one thousand calories and is equal, pound for pound, in ability to sustain life, with lean meat. This high food value has always been recognized in the native home of the Avocado, where the people use it as we do meat here.

"In addition to its high food nutrient value, the Avocado has long been prized for its peculiar hygienic and laxative properties. Its effect on the intestinal walls seems to combine the stimulating action of fruit fibre with the soothing influence of olive oil. These striking and medicinal qualities should prove of great interest to Americans of sedentary habits. . . . While commercial budded groves have been in bearing only a few years, the records show that well cared for trees are regular and abundant in their yield. In Florida the trees come into bearing very early, frequently setting a few fruits the year after planting. . . . Although the grower may feel that he is throwing away good money in picking off fruit that would sell when ripe at 10 to 15 cents apiece, his reward comes in the increased vegetable vigor of the trees and their ability to bear heavier crops of fruit a few years later."

## Mango

(*Mangifera* India)

The Mango, which is the king of tropical fruits, ripens in the summer time, and for that reason will never be valuable for planting on a large scale for Northern markets, until refrigeration can be applied from the grove to the consumer.

**EXTRACT FROM YEAR BOOK:** "The United States Consul at Bombay, William Thomas Fee, in his report for October, 1901, states that in the large shipments of mangoes now being sent from India to London the fruit is packed in the cast-off boxes used for shipping oil to India, and that it arrives in good condition. Fruit is kept at a temperature of about 40 degrees Fahrenheit.

"M. Nollet, director of the garden at Martinique, has succeeded in making small shipments from that island to Paris with a loss not exceeding 10 per cent. The fruit was wrapped in soft paper and packed one dozen in a box, the interstices filled with sawdust and the whole placed in cold storage.

"The fruit is usually picked when of full size, but before it has completely ripened, and is placed in shade to complete the process. In some parts of India it is buried in the ground to ripen, as this is supposed to make it sweeter."

For home use and local markets, also for a certain fancy trade, it has no rivals, and everybody should have a dozen or more trees on his plantation. A very good plan is to plant them around an avocado grove as a windbreak, as they stand wind quite well, and the crop is off before the windy season comes on.

Culture is the same as for citrus trees, and they must be fertilized in the same manner, as animal manure or castor pomace would soon give them dieback, like citrus trees. Therefore, use only the commercial fertilizer recommended for them, but plant, spray and cover, in fact, treat in all other respects just the same as advised for avocados.

I have spent twenty-five years and many hundreds of dollars in experimenting on the mango, seeds, trees and scions. Experience has taught me that all seedlings are worse than unreliable, and I have ceased to offer them under any fancy names.

Scores of different sorts of mango trees have been introduced by the Agricultural Department, as well as by private individuals, and after being fruited for a few years have been gradually dropped from one cause or another. I cut down and regrafted over sixty bearing trees last year, many of which had borne five or six crops of fruit, simply because I considered something else better. Probably the Haden is the most promising variety for general commercial planting, but I would strongly advise everybody to plant a single one each of several varieties for his home consumption. The following are all the varieties I have to offer this year:

**BENNETT ALPHONSO.**—This variety was introduced by the Department and has proved a free bearer and vigorous grower. Quality almost equal to Mulgoba, and flavor rich and spicy. Preferred by some.

**ROUND AMINI.**—This is a very prolific bearer; fruit roundish oval, bright yellow with red cheek. It reembles the finest flavored of any of the old native seedlings more than any other East India variety, but it has no fibre. Only lost one crop in 11 years.

**LANGRA BENARSI.**—Kidney shaped; sometimes weighing up to 3¾ pounds; flavor rich and spicy; color yellowish green. Price, \$2.00 to \$2.50.

**MULGOBA.**—This is the choicest mango that has yet fruited in Florida, and has been bearing for 15 or 20 years. It has its own place in the fancy fruit markets in large cities, and we cannot begin to fill the demand. It is not so prolific as some of the other varieties. Weight, 12 to 18 ounces; yellow with carmine cheek; aroma abundant, and more delicious than any other fruit in the world.

**RAJAH, or RAJPURY.**—Averages 12 ounces in weight; almost round; yellow with pink cheek; flavor rich and buttery; both flavor and aroma distinct from any other mango; very prolific. Has made seven consecutive crops without a failure. Only lost one crop in 12 years.

**SUNDERSHA.**—Most enormously prolific of all; bears at two years old, and never fails to produce all the fruit the tree can hold; seed flat and thin; very valuable when two-thirds to three-fourths grown for chutney or preserves; trees will always set more fruit than they can mature, and when it is partly grown the surplus can be thinned out for cooking, and still leave a full crop to ripen on the tree. Weight, 24 to 48 ounces. Yellow in color; little or no fibre; rich and meaty; \$2.00 to \$2.50 each.

**HADEN.**—This is a seedling from Mulgoba, which is very highly prized by some growers, as being almost identical with Mulgoba. It averages handsomer in appearance, a more reliable bearer, and almost as good in quality. Tree is also an exceptionally vigorous grower.

**CECIL.**—A seedling from the Manila Mango, from Mexico, planted by Mr. Samuel Belcher on his place near Miami. It is long in shape, color yellow, free from fibre and good quality.

**CAMBODIANA.**—Original tree bearing at Royal Palm Nurseries on West Coast. Considered there in same class with our three favorites here (mentioned below) as sure and prolific bearers. Color yellow straw.

During past seasons when the entire mango crop has been short, and many of the best varieties turned out total failures, there have been three varieties which have borne full crops in spite of the unfavorable conditions which have affected the others. These are Rajpury, Round Amini and Sundersha. Everybody should have a tree of each in their dooryard.

#### PRICES

Two years old, in 6x6x14-inch wooden boxes, 4 to 5 feet tall, \$2.50 each; 2 to 4 feet tall, \$2.00 each; 5x5x12-inch boxes, 15 to 25 inches, \$1.50 each.



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